

# Linear discrete systems with memory: A generalization of the Langmuir model

Băleanu D., Nigmatullin R.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

## Abstract

In this manuscript we analyzed a general solution of the linear nonlocal Langmuir model within time scale calculus. Several generalizations of the Langmuir model are presented together with their exact corresponding solutions. The physical meaning of the proposed models are investigated and their corresponding geometries are reported. © 2013 Versita Warsaw and Springer-Verlag Wien.

<http://dx.doi.org/10.2478/s11534-012-0129-5>

---

## Keywords

discrete systems, Langmuir model, memory, time scales calculus